

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : FUJITSU LTD

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(54) FERROELECTRIC MEMORY CELL

(57)Abstract:

PROBLEM TO BE SOLVED: To facilitate the operation and to alleviate the power consumption by reducing the current flowing in a write operation.

SOLUTION: The memory diode cell has hysteresis characteristics and a metal (electrode 1) - ferroelectric element (ferroelectric layer 2) - semiconductor (semiconductor substrate 3) structure, and employs a constitution having a Schottky electrode 5 for writing data in Schottky contact with the semiconductor, and an ohmic electrode 4 for reading data for low-resistance or bringing it into ohmic contact with the semiconductor. In this case, the electrode 5 is formed at the opposite side to the diode, and the electrode 4 can be formed at the diode side. The electrode 5 and the electrode 4 can be reversely set. The electrodes 5, 4 can be formed together at the diode side or at the opposite side to the diode, and a semiconductor thin film formed with the semiconductor on the support substrate is provided.

